

Sequence Listing

<110> Desnoyers,Luc

Eaton,Dan L.

Goddard,Audrey

Godowski,Paul J.

Gurney,Austin L.

Pan,James

Stewart,Timothy A.

Watanabe,Colin K.

Wood,William I.

Zhang,Zemin

<120> SECRETED AND TRANSMEMBRANE POLYPEPTIDES AND NUCLEIC
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          20          25          30

Gln  Thr  Gly  Gly  Leu  Pro  Pro  Asp  Cys  Ser  Lys  Cys  Cys  His  Gly
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Asp  Tyr  Ser  Phe  Arg  Gly  Tyr  Gln  Gly  Pro  Pro  Gly  Pro  Pro  Gly
          50          55          60

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Glu  Lys  Gly  Tyr  Pro  Gly  Ile  Pro  Pro  Glu  Leu  Gln  Ile  Ala  Phe
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Met  Ala  Ser  Leu  Ala  Thr  His  Phe  Ser  Asn  Gln  Asn  Ser  Gly  Ile
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Ile  Phe  Ser  Ser  Val  Glu  Thr  Asn  Ile  Gly  Asn  Phe  Phe  Asp  Val
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Tyr	Leu	Met	His	Asn	Gly	Asn	Thr	Val	Phe	Ser	Met	Tyr	Ser	Tyr
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Glu	Met	Lys	Gly	Lys	Ser	Asp	Thr	Ser	Ser	Asn	His	Ala	Val	Leu
				200					205					210
Lys	Leu	Ala	Lys	Gly	Asp	Glu	Val	Trp	Leu	Arg	Met	Gly	Asn	Gly
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Ala	Leu	His	Gly	Asp	His	Gln	Arg	Phe	Ser	Thr	Phe	Ala	Gly	Phe
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 35 40 45
 Ser Leu Pro Gly Phe Lys Glu Ile Val Ser Arg Gly Val Lys Val
 50 55 60
 Asp Tyr Leu Thr Pro Asp Phe Pro Ser Leu Ser Tyr Pro Asn Tyr
 65 70 75
 Tyr Thr Leu Met Thr Gly Arg His Cys Glu Val His Gln Met Ile
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 Gly Asn Tyr Met Trp Asp Pro Thr Thr Asn Lys Ser Phe Asp Ile
 95 100 105
 Gly Val Asn Lys Asp Ser Leu Met Pro Leu Trp Trp Asn Gly Ser

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Pro Thr Tyr Cys	Leu Glu Tyr Lys Asn	Val Pro Thr Asp Ile Asn			
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Phe Ala Asn Ala	Val Ser Asp Ala Leu	Asp Ser Phe Lys Ser Gly			
	170	175			180
Arg Ala Asp Leu	Ala Ala Ile Tyr His	Glu Arg Ile Asp Val Glu			
	185	190			195
Gly His His Tyr	Gly Pro Ala Ser Pro	Gln Arg Lys Asp Ala Leu			
	200	205			210
Lys Ala Val Asp	Thr Val Leu Lys Tyr	Met Thr Lys Trp Ile Gln			
	215	220			225
Glu Arg Gly Leu	Gln Asp Arg Leu Asn	Val Ile Ile Phe Ser Asp			
	230	235			240
His Gly Met Thr	Asp Ile Phe Trp Met	Asp Lys Val Ile Glu Leu			
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Asn Lys Tyr Ile	Ser Leu Asn Asp Leu	Gln Gln Val Lys Asp Arg			
	260	265			270
Gly Pro Val Val	Ser Leu Trp Pro Ala	Pro Gly Lys His Ser Glu			
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Ile Tyr Asn Lys	Leu Ser Thr Val Glu	His Met Thr Val Tyr Glu			
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Lys Glu Ala Ile	Pro Ser Arg Phe Tyr	Tyr Lys Lys Gly Lys Phe			
	305	310			315
Val Ser Pro Leu	Thr Leu Val Ala Asp	Glu Gly Trp Phe Ile Thr			
	320	325			330
Glu Asn Arg Glu	Met Leu Pro Phe Trp	Met Asn Ser Thr Gly Arg			
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Arg Glu Gly Trp	Gln Arg Gly Trp His	Gly Tyr Asp Asn Glu Leu			
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Met Asp Met Arg	Gly Ile Phe Leu Ala	Phe Gly Pro Asp Phe Lys			
	365	370			375
Ser Asn Phe Arg	Ala Ala Pro Ile Arg	Ser Val Asp Val Tyr Asn			
	380	385			390
Val Met Cys Asn	Val Val Gly Ile Thr	Pro Leu Pro Asn Asn Gly			
	395	400			405

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Ala	Pro	Pro	Val	Trp	Pro	Ser	His	Cys	Ala	Leu	Ala	Leu	Ile	Leu
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Leu	Arg	Pro	Glu	Glu	Val	Leu	Glu	Ala	Asp	Thr	His	Gln	Arg	Ser
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Phe	Gly	Gly	Cys	Ser	His	Gly	Ser	Arg	Cys	Leu	Arg	Asp	Ser	Thr	
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His	Cys	Val	Thr	Thr	Ala	Thr	Arg	Val	Leu	Ser	Asn	Thr	Glu	Asp	
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Leu	Pro	Leu	Val	Thr	Lys	Met	Cys	His	Ile	Gly	Cys	Pro	Asp	Ile	
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Pro	Ser	Leu	Gly	Leu	Gly	Pro	Tyr	Val	Ser	Ile	Ala	Cys	Cys	Gln	
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<210> 18
 <211> 273
 <212> PRT
 <213> Homo Sapien

<400> 18
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 20 25 30
 Cys Phe Ala Asp Phe Lys His Pro Cys Tyr Lys Met Ala Tyr Phe
 35 40 45
 His Glu Leu Ser Ser Arg Val Ser Phe Gln Glu Ala Arg Leu Ala
 50 55 60
 Cys Glu Ser Glu Gly Gly Val Leu Leu Ser Leu Glu Asn Glu Ala
 65 70 75
 Glu Gln Lys Leu Ile Glu Ser Met Leu Gln Asn Leu Thr Lys Pro
 80 85 90
 Gly Thr Gly Ile Ser Asp Gly Asp Phe Trp Ile Gly Leu Trp Arg
 95 100 105
 Asn Gly Asp Gly Gln Thr Ser Gly Ala Cys Pro Asp Leu Tyr Gln
 110 115 120
 Trp Ser Asp Gly Ser Asn Ser Gln Tyr Arg Asn Trp Tyr Thr Asp
 125 130 135
 Glu Pro Ser Cys Gly Ser Glu Lys Cys Val Val Met Tyr His Gln
 140 145 150
 Pro Thr Ala Asn Pro Gly Leu Gly Gly Pro Tyr Leu Tyr Gln Trp
 155 160 165
 Asn Asp Asp Arg Cys Asn Met Lys His Asn Tyr Ile Cys Lys Tyr

	170		175		180
Glu Pro Glu Ile	Asn Pro Thr Ala Pro	Val Glu Lys Pro Tyr Leu			
	185		190		195
Thr Asn Gln Pro	Gly Asp Thr His Gln	Asn Val Val Val Thr Glu			
	200		205		210
Ala Gly Ile Ile	Pro Asn Leu Ile Tyr	Val Val Ile Pro Thr Ile			
	215		220		225
Pro Leu Leu Leu	Leu Ile Leu Val Ala	Phe Gly Thr Cys Cys Phe			
	230		235		240
Gln Met Leu His	Lys Ser Lys Gly Arg	Thr Lys Thr Ser Pro Asn			
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Met Glu Val					

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 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 19
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<210> 20
 <211> 26
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 20
 accacattct gatgggtgtc tcctgg 26

<210> 21
 <211> 49
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 21
 ggggccctac ctttaccagt ggaatgatga caggtgtaac atgaagcac 49

<210> 22
 <211> 3824

<212> DNA
<213> Homo Sapien

<400> 22

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 aataaatctt gctactgccc aaaa 3824

<210> 23

<211> 571

<212> PRT

<213> Homo Sapien

<400> 23

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Val	Cys	Leu	Leu	Leu	Ala	Cys	Pro	Ala	Thr	Ala	Thr	Gly	Pro	Glu
				20					25				30	
Val	Ala	Gln	Pro	Glu	Val	Asp	Thr	Thr	Leu	Gly	Arg	Val	Arg	Gly
				35					40				45	
Arg	Gln	Val	Gly	Val	Lys	Gly	Thr	Asp	Arg	Leu	Val	Asn	Val	Phe

	50	55	60
Leu Gly Ile Pro	Phe 65	Ala Gln Pro Pro	Leu Gly Pro Asp Arg Phe 75
Ser Ala Pro His	Pro 80	Ala Gln Pro Trp	Glu Gly Val Arg Asp Ala 90
Ser Thr Ala Pro	Pro 95	Met Cys Leu Gln	Asp Val Glu Ser Met Asn 105
Ser Ser Arg Phe	Val 110	Leu Asn Gly Lys	Gln Gln Ile Phe Ser Val 120
Ser Glu Asp Cys	Leu 125	Val Leu Asn Val	Tyr Ser Pro Ala Glu Val 135
Pro Ala Gly Ser	Gly 140	Arg Pro Val Met	Val Trp Val His Gly Gly 150
Ala Leu Ile Thr	Gly 155	Ala Ala Thr Ser	Tyr Asp Gly Ser Ala Leu 165
Ala Ala Tyr Gly	Asp 170	Val Val Val Val	Thr Val Gln Tyr Arg Leu 180
Gly Val Leu Gly	Phe 185	Phe Ser Thr Gly	Asp Glu His Ala Pro Gly 195
Asn Gln Gly Phe	Leu 200	Asp Val Val Ala	Ala Leu Arg Trp Val Gln 210
Glu Asn Ile Ala	Pro 215	Phe Gly Gly Asp	Leu Asn Cys Val Thr Val 225
Phe Gly Gly Ser	Ala 230	Gly Gly Ser Ile	Ile Ser Gly Leu Val Leu 240
Ser Pro Val Ala	Ala 245	Gly Leu Phe His	Arg Ala Ile Thr Gln Ser 255
Gly Val Ile Thr	Thr 260	Pro Gly Ile Ile	Asp Ser His Pro Trp Pro 270
Leu Ala Gln Lys	Ile 275	Ala Asn Thr Leu	Ala Cys Ser Ser Ser Ser 285
Pro Ala Glu Met	Val 290	Gln Cys Leu Gln	Gln Lys Glu Gly Glu Glu 300
Leu Val Leu Ser	Lys 305	Lys Leu Lys Asn	Thr Ile Tyr Pro Leu Thr 315
Val Asp Gly Thr	Val 320	Phe Pro Lys Ser	Pro Lys Glu Leu Leu Lys 330
Glu Lys Pro Phe	His 335	Ser Val Pro Phe	Leu Met Gly Val Asn Asn 345

His	Glu	Phe	Ser	Trp	Leu	Ile	Pro	Arg	Gly	Trp	Gly	Leu	Leu	Asp	350	355	360
Thr	Met	Glu	Gln	Met	Ser	Arg	Glu	Asp	Met	Leu	Ala	Ile	Ser	Thr	365	370	375
Pro	Val	Leu	Thr	Ser	Leu	Asp	Val	Pro	Pro	Glu	Met	Met	Pro	Thr	380	385	390
Val	Ile	Asp	Glu	Tyr	Leu	Gly	Ser	Asn	Ser	Asp	Ala	Gln	Ala	Lys	395	400	405
Cys	Gln	Ala	Phe	Gln	Glu	Phe	Met	Gly	Asp	Val	Phe	Ile	Asn	Val	410	415	420
Pro	Thr	Val	Ser	Phe	Ser	Arg	Tyr	Leu	Arg	Asp	Ser	Gly	Ser	Pro	425	430	435
Val	Phe	Phe	Tyr	Glu	Phe	Gln	His	Arg	Pro	Ser	Ser	Phe	Ala	Lys	440	445	450
Ile	Lys	Pro	Ala	Trp	Val	Lys	Ala	Asp	His	Gly	Ala	Glu	Gly	Ala	455	460	465
Phe	Val	Phe	Gly	Gly	Pro	Phe	Leu	Met	Asp	Glu	Ser	Ser	Arg	Leu	470	475	480
Ala	Phe	Pro	Glu	Ala	Thr	Glu	Glu	Glu	Lys	Gln	Leu	Ser	Leu	Thr	485	490	495
Met	Met	Ala	Gln	Trp	Thr	His	Phe	Ala	Arg	Thr	Gly	Asp	Pro	Asn	500	505	510
Ser	Lys	Ala	Leu	Pro	Pro	Trp	Pro	Gln	Phe	Asn	Gln	Ala	Glu	Gln	515	520	525
Tyr	Leu	Glu	Ile	Asn	Pro	Val	Pro	Arg	Ala	Gly	Gln	Lys	Phe	Arg	530	535	540
Glu	Ala	Trp	Met	Gln	Phe	Trp	Ser	Glu	Thr	Leu	Pro	Ser	Lys	Ile	545	550	555
Gln	Gln	Trp	His	Gln	Lys	Gln	Lys	Asn	Arg	Lys	Ala	Gln	Glu	Asp	560	565	570

Leu

<210> 24

<211> 22

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 24

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<210> 25
<211> 25
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 25
gggtggactg tgctctaata gacgc 25

<210> 26
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 26
cgtggcactg ggttgatc 18

<210> 27
<211> 45
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 27
gatgcagttc tggtcagaga cgctccccag caagatacaa cagtg 45

<210> 28
<211> 1342
<212> DNA
<213> Homo Sapien

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<210> 29
 <211> 209
 <212> PRT
 <213> Homo Sapien

<400> 29
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 35 40 45
 Ser Phe Tyr Ala Phe Glu Val Lys Asp Ala Lys Gly Arg Thr Val
 50 55 60
 Ser Leu Glu Lys Tyr Lys Gly Lys Val Ser Leu Val Val Asn Val
 65 70 75
 Ala Ser Asp Cys Gln Leu Thr Asp Arg Asn Tyr Leu Gly Leu Lys
 80 85 90

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Phe	Pro	Cys	Asn	Gln	Phe	Gly	Glu	Ser	Glu	Pro	Arg	Pro	Ser	Lys
				110					115					120
Glu	Val	Glu	Ser	Phe	Ala	Arg	Lys	Asn	Tyr	Gly	Val	Thr	Phe	Pro
				125					130					135
Ile	Phe	His	Lys	Ile	Lys	Ile	Leu	Gly	Ser	Glu	Gly	Glu	Pro	Ala
				140					145					150
Phe	Arg	Phe	Leu	Val	Asp	Ser	Ser	Lys	Lys	Glu	Pro	Arg	Trp	Asn
				155					160					165
Phe	Trp	Lys	Tyr	Leu	Val	Asn	Pro	Glu	Gly	Gln	Val	Val	Lys	Phe
				170					175					180
Trp	Arg	Pro	Glu	Glu	Pro	Ile	Glu	Val	Ile	Arg	Pro	Asp	Ile	Ala
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 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

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<210> 31
 <211> 20
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 31
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<210> 32
 <211> 24
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 32
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<210> 33

<211> 50
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

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<210> 34
<211> 3721
<212> DNA
<213> Homo Sapien

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<211> 888

<212> PRT

<213> Homo Sapien

<400> 35

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Ile Pro Gly Ser	Ala Val Cys Ala Phe	Asp Leu Thr Gln Val Ala			
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Ala Val Phe Glu	Gly Arg Phe Arg Glu	Gln Lys Ser Pro Glu Ser			
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Ile Trp Thr Pro	Val Pro Glu Asp Gln	Val Pro Arg Pro Arg Pro			
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Gly Cys Cys Ala	Ala Pro Gly Met Gln	Tyr Asn Ala Ser Ser Ala			
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Leu Pro Asp Asp	Ile Leu Asn Phe Val	Lys Thr His Pro Leu Met			
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Asp Glu Ala Val	Pro Ser Leu Gly His	Ala Pro Trp Ile Leu Arg			
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Thr Leu Met Arg	His Gln Leu Thr Arg	Val Ala Val Asp Val Gly			
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Ala Gly Pro Trp	Gly Asn Gln Thr Val	Val Phe Leu Gly Ser Glu			
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Ala Gly Thr Val	Leu Lys Phe Leu Val	Arg Pro Asn Ala Ser Thr			
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Ser Gly Thr Ser	Gly Leu Ser Val Phe	Leu Glu Glu Phe Glu Thr			
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Gln Arg Leu Leu	Ser Leu Glu Leu Asp	Ala Ala Ser Gly Gly Leu			
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Leu Ala Ala Phe	Pro Arg Cys Val Val	Arg Val Pro Val Ala Arg			
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Cys Gln Gln Tyr	Ser Gly Cys Met Lys	Asn Cys Ile Gly Ser Gln			
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Asp Pro Tyr Cys	Gly Trp Ala Pro Asp	Gly Ser Cys Ile Phe Leu			
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Ser Pro Gly Thr	Arg Ala Ala Phe Glu	Gln Asp Val Ser Gly Ala			
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Ser Thr Ser Gly	Leu Gly Asp Cys Thr	Gly Leu Leu Arg Ala Ser			
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Leu Ser Glu Asp	Arg Ala Gly Leu Val	Ser Val Asn Leu Leu Val			
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Phe	Ser	Val	Gly	Trp	Phe	Val	Gly	Leu	Arg	Glu	Arg	Arg	Glu	Leu	
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Ala	Arg	Arg	Lys	Asp	Lys	Glu	Ala	Ile	Leu	Ala	His	Gly	Ala	Gly	
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Glu	Ala	Val	Leu	Ser	Val	Ser	Arg	Leu	Gly	Glu	Arg	Arg	Ala	Gln	
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Gly	Pro	Gly	Gly	Arg	Gly	Gly	Gly	Gly	Gly	Gly	Gly	Ala	Gly	Val	
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Pro	Pro	Glu	Ala	Leu	Leu	Ala	Pro	Leu	Met	Gln	Asn	Gly	Trp	Ala	
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Asp	His	Gly	His	Pro	Leu	Leu	Pro	Ala	Ser	Ala	Ser	Ser	Ser	Leu	
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Pro	Gly	Asp	Arg	His	Arg	Gly	Cys	His	Ala	Arg	Pro	Gly	Thr	Asp	
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<213> Artificial Sequence

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<223> Synthetic oligonucleotide probe

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<210> 37
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<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 37
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<210> 38
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<220>
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<211> 2014
<212> DNA
<213> Homo Sapien

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 Pro Ala Arg Tyr Phe Tyr Ile Gln Ala Val Asp Thr Ser Gly Asn
 50 55 60
 Lys Phe Thr Ser Ser Pro Gly Glu Lys Val Phe Gln Val Lys Val
 65 70 75
 Ser Ala Pro Glu Glu Gln Phe Thr Arg Val Gly Val Gln Val Leu
 80 85 90
 Asp Arg Lys Asp Gly Ser Phe Ile Val Arg Tyr Arg Met Tyr Ala
 95 100 105
 Ser Tyr Lys Asn Leu Lys Val Glu Ile Lys Phe Gln Gly Gln His
 110 115 120
 Val Ala Lys Ser Pro Tyr Ile Leu Lys Gly Pro Val Tyr His Glu
 125 130 135
 Asn Cys Asp Cys Pro Leu Gln Asp Ser Ala Ala Trp Leu Arg Glu
 140 145 150
 Met Asn Cys Pro Glu Thr Ile Ala Gln Ile Gln Arg Asp Leu Ala
 155 160 165
 His Phe Pro Ala Val Asp Pro Glu Lys Ile Ala Val Glu Ile Pro
 170 175 180
 Lys Arg Phe Gly Gln Arg Gln Ser Leu Cys His Tyr Thr Leu Lys
 185 190 195
 Asp Asn Lys Val Tyr Ile Lys Thr His Gly Glu His Val Gly Phe
 200 205 210
 Arg Ile Phe Met Asp Ala Ile Leu Leu Ser Leu Thr Arg Lys Val
 215 220 225
 Lys Met Pro Asp Val Glu Leu Phe Val Asn Leu Gly Asp Trp Pro

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Trp Cys Gly Ser	Thr Asp Ser Lys Asp	Ile Val Met Pro Thr Tyr			
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Asp Leu Thr Asp	Ser Val Leu Glu Thr	Met Gly Arg Val Ser Leu			
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Asp Met Met Ser	Val Gln Ala Asn Thr	Gly Pro Pro Trp Glu Ser			
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Lys Asn Ser Thr	Ala Val Trp Arg Gly	Arg Asp Ser Arg Lys Glu			
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Arg Leu Glu Leu	Val Lys Leu Ser Arg	Lys His Pro Glu Leu Ile			
	320	325		330	
Asp Ala Ala Phe	Thr Asn Phe Phe Phe	Phe Lys His Asp Glu Asn			
	335	340		345	
Leu Tyr Gly Pro	Ile Val Lys His Ile	Ser Phe Phe Asp Phe Phe			
	350	355		360	
Lys His Lys Tyr	Gln Ile Asn Ile Asp	Gly Thr Val Ala Ala Tyr			
	365	370		375	
Arg Leu Pro Tyr	Leu Leu Val Gly Asp	Ser Val Val Leu Lys Gln			
	380	385		390	
Asp Ser Ile Tyr	Tyr Glu His Phe Tyr	Asn Glu Leu Gln Pro Trp			
	395	400		405	
Lys His Tyr Ile	Pro Val Lys Ser Asn	Leu Ser Asp Leu Leu Glu			
	410	415		420	
Lys Leu Lys Trp	Ala Lys Asp His Asp	Glu Glu Ala Lys Lys Ile			
	425	430		435	
Ala Lys Ala Gly	Gln Glu Phe Ala Arg	Asn Asn Leu Met Gly Asp			
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Asp Ile Phe Cys	Tyr Tyr Phe Lys Leu	Phe Gln Glu Tyr Ala Asn			
	455	460		465	
Leu Gln Val Ser	Glu Pro Gln Ile Arg	Glu Gly Met Lys Arg Val			
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Glu Pro Gln Thr	Glu Asp Asp Leu Phe	Pro Cys Thr Cys His Arg			
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<212> DNA
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<223> Synthetic oligonucleotide probe

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<210> 42
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<212> DNA
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<220>
<223> Synthetic oligonucleotide probe

<400> 42
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<210> 43
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<210> 44
<211> 2395
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<211> 310

<212> PRT

<213> Homo Sapien

<400> 45

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Pro	Val	Arg	Ser	Ser	Ala	Arg	Ala	Glu	His	Gly	Ala	Glu	Pro	Pro
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Pro	Pro	Pro	Leu	Phe	Ser	Lys	Val	Val	Ile	Val	Leu	Ile	Asp	Ala
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Leu	Arg	Asp	Asp	Phe	Val	Phe	Gly	Ser	Lys	Gly	Val	Lys	Phe	Met
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Pro	Tyr	Thr	Thr	Tyr	Leu	Val	Glu	Lys	Gly	Ala	Ser	His	Ser	Phe
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Val	Ala	Glu	Ala	Lys	Pro	Pro	Thr	Val	Thr	Met	Pro	Arg	Ile	Lys
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Ala	Leu	Met	Thr	Gly	Ser	Leu	Pro	Gly	Phe	Val	Asp	Val	Ile	Arg
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Asn	Leu	Asn	Ser	Pro	Ala	Leu	Leu	Glu	Asp	Ser	Val	Ile	Arg	Gln
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Ala	Lys	Ala	Ala	Gly	Lys	Arg	Ile	Val	Phe	Tyr	Gly	Asp	Glu	Thr
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Trp	Val	Lys	Leu	Phe	Pro	Lys	His	Phe	Val	Glu	Tyr	Asp	Gly	Thr
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Thr	Ser	Phe	Phe	Val	Ser	Asp	Tyr	Thr	Glu	Val	Asp	Asn	Asn	Val
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Thr	Arg	His	Leu	Asp	Lys	Val	Leu	Lys	Arg	Gly	Asp	Trp	Asp	Ile
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Leu	Ile	Leu	His	Tyr	Leu	Gly	Leu	Asp	His	Ile	Gly	His	Ile	Ser
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Gly	Pro	Asn	Ser	Pro	Leu	Ile	Gly	Gln	Lys	Leu	Ser	Glu	Met	Asp
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Ser	Val	Leu	Met	Lys	Ile	His	Thr	Ser	Leu	Gln	Ser	Lys	Glu	Arg
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<220>
 <223> Synthetic oligonucleotide probe

<400> 47
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<210> 48
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 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 48

ccttcgggga ttcttcccgg ctcccgttcg ttcctctg 38

<210> 49

<211> 918

<212> DNA

<213> Homo Sapien

<400> 49

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gcactacagg tcctggccct gctcctccca gtcctcctgc tgggtggggct 800
ctcagcatag accgcccctc caggatgctg gggacagggc tcacacacct 850
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aaagtaagaa ttgcaaaa 918

<210> 50

<211> 251

<212> PRT

<213> Homo Sapien

<400> 50

Met	Ala	Met	Gly	Val	Pro	Arg	Val	Ile	Leu	Leu	Cys	Leu	Phe	Gly
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Ala	Ala	Leu	Cys	Leu	Thr	Gly	Ser	Gln	Ala	Leu	Gln	Cys	Tyr	Ser
				20					25					30

Phe	Glu	His	Thr	Tyr	Phe	Gly	Pro	Phe	Asp	Leu	Arg	Ala	Met	Lys
				35					40					45
Leu	Pro	Ser	Ile	Ser	Cys	Pro	His	Glu	Cys	Phe	Glu	Ala	Ile	Leu
				50					55					60
Ser	Leu	Asp	Thr	Gly	Tyr	Arg	Ala	Pro	Val	Thr	Leu	Val	Arg	Lys
				65					70					75
Gly	Cys	Trp	Thr	Gly	Pro	Pro	Ala	Gly	Gln	Thr	Gln	Ser	Asn	Pro
				80					85					90
Asp	Ala	Leu	Pro	Pro	Asp	Tyr	Ser	Val	Val	Arg	Gly	Cys	Thr	Thr
				95					100					105
Asp	Lys	Cys	Asn	Ala	His	Leu	Met	Thr	His	Asp	Ala	Leu	Pro	Asn
				110					115					120
Leu	Ser	Gln	Ala	Pro	Asp	Pro	Pro	Thr	Leu	Ser	Gly	Ala	Glu	Cys
				125					130					135
Tyr	Ala	Cys	Ile	Gly	Val	His	Gln	Asp	Asp	Cys	Ala	Ile	Gly	Arg
				140					145					150
Ser	Arg	Arg	Val	Gln	Cys	His	Gln	Asp	Gln	Thr	Ala	Cys	Phe	Gln
				155					160					165
Gly	Ser	Gly	Arg	Met	Thr	Val	Gly	Asn	Phe	Ser	Val	Pro	Val	Tyr
				170					175					180
Ile	Arg	Thr	Cys	His	Arg	Pro	Ser	Cys	Thr	Thr	Glu	Gly	Thr	Thr
				185					190					195
Ser	Pro	Trp	Thr	Ala	Ile	Asp	Leu	Gln	Gly	Ser	Cys	Cys	Glu	Gly
				200					205					210
Tyr	Leu	Cys	Asn	Arg	Lys	Ser	Met	Thr	Gln	Pro	Phe	Thr	Ser	Ala
				215					220					225
Ser	Ala	Thr	Thr	Pro	Pro	Arg	Ala	Leu	Gln	Val	Leu	Ala	Leu	Leu
				230					235					240
Leu	Pro	Val	Leu	Leu	Leu	Val	Gly	Leu	Ser	Ala				
				245					250					

<210> 51
 <211> 3288
 <212> DNA
 <213> Homo Sapien

<400> 51
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 caactaggaa ataacgtatg cagcagctat ggctgtcaga gagttgtgct 200

tcccaagaca aaggcaagtc ctgtttcttt ttcttttttg gggagtgtcc 250
ttggcagggt ctgggttttg acgttattcg gtgactgagg aaacagagaa 300
aggatccttt gtggtcaatc tggcaaagga tctgggacta gcagaggggg 350
agctggctgc aaggggaacc agggtggttt ccgatgataa caaacaatac 400
ctgctcctgg attcacatac cggaatttg ctcacaaatg agaaactgga 450
ccgagagaag ctgtgtggcc ctaaagagcc ctgtatgctg tatttccaaa 500
ttttaatgga tgatcccttt cagatttacc gggctgagct gagagtcagg 550
gatataaatg atcacgcgcc agtatttcag gacaaagaaa cagtcttaaa 600
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aactcttttt tccatattaa cattagtggc ggtgatgaag gcatgatata 750
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gcggaagtat cctattcatt ttttgatgcc tcagaaaata ttcgaacgac 1050
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gccacagaca gagactcggg caccaacgcc caggtcacct actcgtgct 1650

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<210> 52

<211> 800

<212> PRT

<213> Homo Sapien

<400> 52

Met	Ala	Val	Arg	Glu	Leu	Cys	Phe	Pro	Arg	Gln	Arg	Gln	Val	Leu	1	5	10	15
Phe	Leu	Phe	Leu	Phe	Trp	Gly	Val	Ser	Leu	Ala	Gly	Ser	Gly	Phe	20	25	30	
Gly	Arg	Tyr	Ser	Val	Thr	Glu	Glu	Thr	Glu	Lys	Gly	Ser	Phe	Val	35	40	45	
Val	Asn	Leu	Ala	Lys	Asp	Leu	Gly	Leu	Ala	Glu	Gly	Glu	Leu	Ala	50	55	60	
Ala	Arg	Gly	Thr	Arg	Val	Val	Ser	Asp	Asp	Asn	Lys	Gln	Tyr	Leu	65	70	75	
Leu	Leu	Asp	Ser	His	Thr	Gly	Asn	Leu	Leu	Thr	Asn	Glu	Lys	Leu	80	85	90	
Asp	Arg	Glu	Lys	Leu	Cys	Gly	Pro	Lys	Glu	Pro	Cys	Met	Leu	Tyr	95	100	105	
Phe	Gln	Ile	Leu	Met	Asp	Asp	Pro	Phe	Gln	Ile	Tyr	Arg	Ala	Glu	110	115	120	
Leu	Arg	Val	Arg	Asp	Ile	Asn	Asp	His	Ala	Pro	Val	Phe	Gln	Asp	125	130	135	
Lys	Glu	Thr	Val	Leu	Lys	Ile	Ser	Glu	Asn	Thr	Ala	Glu	Gly	Thr	140	145	150	
Ala	Phe	Arg	Leu	Glu	Arg	Ala	Gln	Asp	Pro	Asp	Gly	Gly	Leu	Asn	155	160	165	
Gly	Ile	Gln	Asn	Tyr	Thr	Ile	Ser	Pro	Asn	Ser	Phe	Phe	His	Ile	170	175	180	
Asn	Ile	Ser	Gly	Gly	Asp	Glu	Gly	Met	Ile	Tyr	Pro	Glu	Leu	Val	185	190	195	
Leu	Asp	Lys	Ala	Leu	Asp	Arg	Glu	Glu	Gln	Gly	Glu	Leu	Ser	Leu	200	205	210	
Thr	Leu	Thr	Ala	Leu	Asp	Gly	Gly	Ser	Pro	Ser	Arg	Ser	Gly	Thr	215	220	225	

Ser Thr Val Arg	Ile Val Val Leu Asp	Val Asn Asp Asn Ala Pro	230	235	240
Gln Phe Ala Gln	Ala Leu Tyr Glu Thr	Gln Ala Pro Glu Asn Ser	245	250	255
Pro Ile Gly Phe	Leu Ile Val Lys Val	Trp Ala Glu Asp Val Asp	260	265	270
Ser Gly Val Asn	Ala Glu Val Ser Tyr	Ser Phe Phe Asp Ala Ser	275	280	285
Glu Asn Ile Arg	Thr Thr Phe Gln Ile	Asn Pro Phe Ser Gly Glu	290	295	300
Ile Phe Leu Arg	Glu Leu Leu Asp Tyr	Glu Leu Val Asn Ser Tyr	305	310	315
Lys Ile Asn Ile	Gln Ala Met Asp Gly	Gly Gly Leu Ser Ala Arg	320	325	330
Cys Arg Val Leu	Val Glu Val Leu Asp	Thr Asn Asp Asn Pro Pro	335	340	345
Glu Leu Ile Val	Ser Ser Phe Ser Asn	Ser Val Ala Glu Asn Ser	350	355	360
Pro Glu Thr Pro	Leu Ala Val Phe Lys	Ile Asn Asp Arg Asp Ser	365	370	375
Gly Glu Asn Gly	Lys Met Val Cys Tyr	Ile Gln Glu Asn Leu Pro	380	385	390
Phe Leu Leu Lys	Pro Ser Val Glu Asn	Phe Tyr Ile Leu Ile Thr	395	400	405
Glu Gly Ala Leu	Asp Arg Glu Ile Arg	Ala Glu Tyr Asn Ile Thr	410	415	420
Ile Thr Val Thr	Asp Leu Gly Thr Pro	Arg Leu Lys Thr Glu His	425	430	435
Asn Ile Thr Val	Leu Val Ser Asp Val	Asn Asp Asn Ala Pro Ala	440	445	450
Phe Thr Gln Thr	Ser Tyr Thr Leu Phe	Val Arg Glu Asn Asn Ser	455	460	465
Pro Ala Leu His	Ile Gly Ser Val Ser	Ala Thr Asp Arg Asp Ser	470	475	480
Gly Thr Asn Ala	Gln Val Thr Tyr Ser	Leu Leu Pro Pro Gln Asp	485	490	495
Pro His Leu Pro	Leu Ala Ser Leu Val	Ser Ile Asn Ala Asp Asn	500	505	510
Gly His Leu Phe	Ala Leu Arg Ser Leu	Asp Tyr Glu Ala Leu Gln			

	515		520		525
Ala Phe Glu Phe	Arg Val Gly Ala Thr	Asp Arg Gly Ser Pro	Ala		
	530	535	540		
Leu Ser Arg Glu	Ala Leu Val Arg Val	Leu Val Leu Asp Ala	Asn		
	545	550	555		
Asp Asn Ser Pro	Phe Val Leu Tyr Pro	Leu Gln Asn Gly Ser	Ala		
	560	565	570		
Pro Cys Thr Glu	Leu Val Pro Arg Ala	Ala Glu Pro Gly Tyr	Leu		
	575	580	585		
Val Thr Lys Val	Val Ala Val Asp Gly	Asp Ser Gly Gln Asn	Ala		
	590	595	600		
Trp Leu Ser Tyr	Gln Leu Leu Lys Ala	Thr Glu Pro Gly Leu	Phe		
	605	610	615		
Gly Val Trp Ala	His Asn Gly Glu Val	Arg Thr Ala Arg Leu	Leu		
	620	625	630		
Ser Glu Arg Asp	Ala Ala Lys His Arg	Leu Val Val Leu Val	Lys		
	635	640	645		
Asp Asn Gly Glu	Pro Pro Arg Ser Ala	Thr Ala Thr Leu His	Leu		
	650	655	660		
Leu Leu Val Asp	Gly Phe Ser Gln Pro	Tyr Leu Pro Leu Pro	Glu		
	665	670	675		
Ala Ala Pro Ala	Gln Ala Gln Ala Glu	Ala Asp Leu Leu Thr	Val		
	680	685	690		
Tyr Leu Val Val	Ala Leu Ala Ser Val	Ser Ser Leu Phe Leu	Leu		
	695	700	705		
Ser Val Leu Leu	Phe Val Ala Val Arg	Leu Cys Arg Arg Ser	Arg		
	710	715	720		
Ala Ala Ser Val	Gly Arg Cys Ser Val	Pro Glu Gly Pro Phe	Pro		
	725	730	735		
Gly His Leu Val	Asp Val Arg Gly Ala	Glu Thr Leu Ser Gln	Ser		
	740	745	750		
Tyr Gln Tyr Glu	Val Cys Leu Thr Gly	Gly Pro Gly Thr Ser	Glu		
	755	760	765		
Phe Lys Phe Leu	Lys Pro Val Ile Ser	Asp Ile Gln Ala Gln	Gly		
	770	775	780		
Pro Gly Arg Lys	Gly Glu Glu Asn Ser	Thr Phe Arg Asn Ser	Phe		
	785	790	795		
Gly Phe Asn Ile	Gln				
	800				

<210> 53
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 53
ctggggagtg tccttggcag gttc 24

<210> 54
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 54
cagcatcacg ggctcttttag ggcacac 27

<210> 55
<211> 46
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 55
cggtgactga ggaaacagag aaaggatcct ttgtgggtcaa tctggc 46

<210> 56
<211> 2242
<212> DNA
<213> Homo Sapien

<220>
<221> unsure
<222> 2181
<223> unknown base

<400> 56
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tataccagcc tcgtcttcct tccgggggac aacgtgggtc agggcacaga 100
gagatattta atgtcacctt cttggggctt tcatgggact ccctctgcca 150
catttttttg aggttgggaa agttgctaga ggcttcagaa ctccagccta 200
atggatccca aactcgggag aatggctgctg tccctgctgg ctgtgctgct 250
gctgctgctg gagcgcgga tgttctcctc accctccccg cccccggcgc 300
tgttagagaa agtcttccag tacattgacc tccatcagga tgaatttgctg 350

cagacgctga aggagtgggt ggccatcgag agcgactctg tccagcctgt 400
gcctcgcttc agacaagagc tcttcagaat gatggccgtg gctgcgga 450
cgctgcagcg cctggggggc cgtgtggcct cgggtggacat gggtcctcag 500
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gctggctctg ttgccctgga ggaacttgtg gaaaaagaaa aggaccgatt 850
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gtggaggtga aatgcagaga ccaggatttt cactcaggaa cctttgggtg 1000
catccttcat gaaccaatgg ctgatctgggt tgctcttctc ggtagcctgg 1050
tagactcgtc tggatcatatc ctgggtccctg gaattctatga tgaagtgggt 1100
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aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aa 2242

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<210> 57
<211> 507
<212> PRT
<213> Homo Sapien

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<400> 57
Met Asp Pro Lys Leu Gly Arg Met Ala Ala Ser Leu Leu Ala Val
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Leu Leu Leu Leu Leu Glu Arg Gly Met Phe Ser Ser Pro Ser Pro
          20             25
Pro Pro Ala Leu Leu Glu Lys Val Phe Gln Tyr Ile Asp Leu His
          35             40
Gln Asp Glu Phe Val Gln Thr Leu Lys Glu Trp Val Ala Ile Glu
          50             55             60
Ser Asp Ser Val Gln Pro Val Pro Arg Phe Arg Gln Glu Leu Phe
          65             70
Arg Met Met Ala Val Ala Ala Asp Thr Leu Gln Arg Leu Gly Ala
          80             85             90
Arg Val Ala Ser Val Asp Met Gly Pro Gln Gln Leu Pro Asp Gly
          95             100            105
Gln Ser Leu Pro Ile Pro Pro Val Ile Leu Ala Glu Leu Gly Ser
          110            115            120
Asp Pro Thr Lys Gly Thr Val Cys Phe Tyr Gly His Leu Asp Val
          125            130            135
Gln Pro Ala Asp Arg Gly Asp Gly Trp Leu Thr Asp Pro Tyr Val
          140            145            150
Leu Thr Glu Val Asp Gly Lys Leu Tyr Gly Arg Gly Ala Thr Asp
          155            160            165
Asn Lys Gly Pro Val Leu Ala Trp Ile Asn Ala Val Ser Ala Phe

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	170	175	180
Arg Ala Leu Glu	Gln Asp Leu Pro Val	Asn Ile Lys Phe Ile	Ile
	185	190	195
Glu Gly Met Glu	Glu Ala Gly Ser Val	Ala Leu Glu Glu Leu	Val
	200	205	210
Glu Lys Glu Lys	Asp Arg Phe Phe Ser	Gly Val Asp Tyr Ile	Val
	215	220	225
Ile Ser Asp Asn	Leu Trp Ile Ser Gln	Arg Lys Pro Ala Ile	Thr
	230	235	240
Tyr Gly Thr Arg	Gly Asn Ser Tyr Phe	Met Val Glu Val Lys	Cys
	245	250	255
Arg Asp Gln Asp	Phe His Ser Gly Thr	Phe Gly Gly Ile Leu	His
	260	265	270
Glu Pro Met Ala	Asp Leu Val Ala Leu	Leu Gly Ser Leu Val	Asp
	275	280	285
Ser Ser Gly His	Ile Leu Val Pro Gly	Ile Tyr Asp Glu Val	Val
	290	295	300
Pro Leu Thr Glu	Glu Glu Ile Asn Thr	Tyr Lys Ala Ile His	Leu
	305	310	315
Asp Leu Glu Glu	Tyr Arg Asn Ser Ser	Arg Val Glu Lys Phe	Leu
	320	325	330
Phe Asp Thr Lys	Glu Glu Ile Leu Met	His Leu Trp Arg Tyr	Pro
	335	340	345
Ser Leu Ser Ile	His Gly Ile Glu Gly	Ala Phe Asp Glu Pro	Gly
	350	355	360
Thr Lys Thr Val	Ile Pro Gly Arg Val	Ile Gly Lys Phe Ser	Ile
	365	370	375
Arg Leu Val Pro	His Met Asn Val Ser	Ala Val Glu Lys Gln	Val
	380	385	390
Thr Arg His Leu	Glu Asp Val Phe Ser	Lys Arg Asn Ser Ser	Asn
	395	400	405
Lys Met Val Val	Ser Met Thr Leu Gly	Leu His Pro Trp Ile	Ala
	410	415	420
Asn Ile Asp Asp	Thr Gln Tyr Leu Ala	Ala Lys Arg Ala Ile	Arg
	425	430	435
Thr Val Phe Gly	Thr Glu Pro Asp Met	Ile Arg Asp Gly Ser	Thr
	440	445	450
Ile Pro Ile Ala	Lys Met Phe Gln Glu	Ile Val His Lys Ser	Val
	455	460	465

Val Leu Ile Pro Leu Gly Ala Val Asp Asp Gly Glu His Ser Gln
470 475 480

Asn Glu Lys Ile Asn Arg Trp Asn Tyr Ile Glu Gly Thr Lys Leu
485 490 495

Phe Ala Ala Phe Phe Leu Glu Met Ala Gln Leu His
500 505

<210> 58

<211> 1470

<212> DNA

<213> Homo Sapien

<400> 58

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ctttgtcatg ggacctgtgc ggttggaat attgcttttc ctttttttg 150
ccgtgcacga ggcttgggct gggatgttga aggaggagga cgatgacaca 200
gaacgcttgc ccagcaaatg cgaagtgtgt aagctgctga gcacagagct 250
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 cagcaaaccg tgaaggagaa tgggacactg ggtcatggcc tggagttgct 1350
 gataatttag gtgggataga tacttggctc acttaagctc aatgtaaccc 1400
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<210> 59
 <211> 248
 <212> PRT
 <213> Homo Sapien

<400> 59
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 Val His Glu Ala Trp Ala Gly Met Leu Lys Glu Glu Asp Asp Asp
 20 25 30
 Thr Glu Arg Leu Pro Ser Lys Cys Glu Val Cys Lys Leu Leu Ser
 35 40 45
 Thr Glu Leu Gln Ala Glu Leu Ser Arg Thr Gly Arg Ser Arg Glu
 50 55 60
 Val Leu Glu Leu Gly Gln Val Leu Asp Thr Gly Lys Arg Lys Arg
 65 70 75
 His Val Pro Tyr Ser Val Ser Glu Thr Arg Leu Glu Glu Ala Leu
 80 85 90
 Glu Asn Leu Cys Glu Arg Ile Leu Asp Tyr Ser Val His Ala Glu
 95 100 105
 Arg Lys Gly Ser Leu Arg Tyr Ala Lys Gly Gln Ser Gln Thr Met
 110 115 120
 Ala Thr Leu Lys Gly Leu Val Gln Lys Gly Val Lys Val Asp Leu
 125 130 135
 Gly Ile Pro Leu Glu Leu Trp Asp Glu Pro Ser Val Glu Val Thr
 140 145 150
 Tyr Leu Lys Lys Gln Cys Glu Thr Met Leu Glu Glu Phe Glu Asp
 155 160 165
 Ile Val Gly Asp Trp Tyr Phe His His Gln Glu Gln Pro Leu Gln
 170 175 180

Asn	Phe	Leu	Cys	Glu	Gly	His	Val	Leu	Pro	Ala	Ala	Glu	Thr	Ala
				185					190					195
Cys	Leu	Gln	Glu	Thr	Trp	Thr	Gly	Lys	Glu	Ile	Thr	Asp	Gly	Glu
				200					205					210
Glu	Lys	Thr	Glu	Gly	Glu	Glu	Glu	Gln	Glu	Glu	Glu	Glu	Glu	Glu
				215					220					225
Glu	Glu	Glu	Glu	Gly	Gly	Asp	Lys	Met	Thr	Lys	Thr	Gly	Ser	His
				230					235					240
Pro	Lys	Leu	Asp	Arg	Glu	Asp	Leu							
				245										

<210> 60
 <211> 890
 <212> DNA
 <213> Homo Sapien

<400> 60
 aagtacttgt gtccgggtgg tggactggat tagctgcgga gccctggaag 50
 ctgcctgtcc ttctccctgt gcttaaccag aggtgcccat gggttggaca 100
 atgaggctgg tcacagcagc actgttactg ggtctcatga tggtggtcac 150
 tggagacgag gatgagaaca gcccggtgtgc ccatgaggcc ctcttgacg 200
 aggacaccct cttttgccag ggccttgaag ttttctaccc agagttgggg 250
 aacattggct gcaagggtgt tctgtattgt aacaactaca gacagaagat 300
 cacctcctgg atggagccga tagtcaagtt cccggggggcc gtggacggcg 350
 caacctatat cctggtgatg gtggatccag atgccctag cagagcagaa 400
 cccagacaga gattctggag acattggctg gtaacagata tcaagggcgc 450
 cgacctgaag aaagggaaga ttcagggcca ggagttatca gcctaccagg 500
 ctccctcccc accggcacac agtggcttcc atcgctacca gttctttgtc 550
 tatcttcagg aaggaaaagt catctctctc cttccaagg aaaacaaaac 600
 tcgaggctct tggaaaatgg acagatttct gaaccgcttc cacctgggcg 650
 aacctgaagc aagcaccagc ttcattgacc agaactacca ggactcacca 700
 accctccagg ctcccagagg aagggccagc gagcccaagc acaaaaccag 750
 gcagagatag ctgcctgcta gatagccggc tttgccatcc gggcatgtgg 800
 ccacactgct caccaccgac gatgtgggta tggaaccccc tctggataca 850
 gaacccttc ttttccaaat taataaaaaa aatcatcaaa 890

<210> 61

<211> 223
 <212> PRT
 <213> Homo Sapien

<400> 61

Met	Gly	Trp	Thr	Met	Arg	Leu	Val	Thr	Ala	Ala	Leu	Leu	Leu	Gly	1	5	10	15
Leu	Met	Met	Val	Val	Thr	Gly	Asp	Glu	Asp	Glu	Asn	Ser	Pro	Cys	20	25	30	
Ala	His	Glu	Ala	Leu	Leu	Asp	Glu	Asp	Thr	Leu	Phe	Cys	Gln	Gly	35	40	45	
Leu	Glu	Val	Phe	Tyr	Pro	Glu	Leu	Gly	Asn	Ile	Gly	Cys	Lys	Val	50	55	60	
Val	Pro	Asp	Cys	Asn	Asn	Tyr	Arg	Gln	Lys	Ile	Thr	Ser	Trp	Met	65	70	75	
Glu	Pro	Ile	Val	Lys	Phe	Pro	Gly	Ala	Val	Asp	Gly	Ala	Thr	Tyr	80	85	90	
Ile	Leu	Val	Met	Val	Asp	Pro	Asp	Ala	Pro	Ser	Arg	Ala	Glu	Pro	95	100	105	
Arg	Gln	Arg	Phe	Trp	Arg	His	Trp	Leu	Val	Thr	Asp	Ile	Lys	Gly	110	115	120	
Ala	Asp	Leu	Lys	Lys	Gly	Lys	Ile	Gln	Gly	Gln	Glu	Leu	Ser	Ala	125	130	135	
Tyr	Gln	Ala	Pro	Ser	Pro	Pro	Ala	His	Ser	Gly	Phe	His	Arg	Tyr	140	145	150	
Gln	Phe	Phe	Val	Tyr	Leu	Gln	Glu	Gly	Lys	Val	Ile	Ser	Leu	Leu	155	160	165	
Pro	Lys	Glu	Asn	Lys	Thr	Arg	Gly	Ser	Trp	Lys	Met	Asp	Arg	Phe	170	175	180	
Leu	Asn	Arg	Phe	His	Leu	Gly	Glu	Pro	Glu	Ala	Ser	Thr	Gln	Phe	185	190	195	
Met	Thr	Gln	Asn	Tyr	Gln	Asp	Ser	Pro	Thr	Leu	Gln	Ala	Pro	Arg	200	205	210	
Gly	Arg	Ala	Ser	Glu	Pro	Lys	His	Lys	Thr	Arg	Gln	Arg	215	220				

<210> 62
 <211> 1321
 <212> DNA
 <213> Homo Sapien

<400> 62

gtcgacccac gcgtccgaag ctgctggagc cagattcag tcccctggac 50

tgtagataaa gaccctttct tgccagggtgc tgagacaacc aactatgag 100
 aggcactcca ggagacgctg atgggtggagg aagggccgtc tatcaatcaa 150
 tctactgttg tgttatcaca tgcaagtatc cagaggctct tgagcaaggc 200
 agaggggatc ccatttatctt gggaatccag aatccagaaa tgtgtttgta 250
 ttgtgagaag gttggagaac agcccacatt gcagctaaaa gagcagaaga 300
 tcatggatct gtatggccaa cccgagcccg tgaaaccctt ctttttctac 350
 cgtgccaaga ctggtaggac ctccaccctt gagtctgtgg ccttcccga 400
 ctgggtcatt gcctcctcca agagagacca gcccatcatt ctgacttcag 450
 aacttgggaa gtcatacaac actgcctttg aattaaatat aaatgactga 500
 actcagccta gaggtggcag cttgggtctt gtcttaaagt ttctgggtcc 550
 caatgtgttt tctgtctacat tttcttagtg tcattttcac gctgggtgctg 600
 agacaggagc aaggctgctg ttatcatctc attttataat gaagaagaag 650
 caattacttc atagcaactg aagaacagga tgtggcctca gaagcaggag 700
 agctgggtgg tataaggctg tcctctcaag ctgggtgctgt gtaggccaca 750
 aggcactctg atgagtgact ttaagactca aagaccaaac actgagcttt 800
 cttctagggg tgggtatgaa gatgcttcag agctcatgcg cgttaccac 850
 gatggcatga ctagcacaga gctgatctct gtttctgttt tgctttattc 900
 cctcttggga tgatatcatc cagtctttat atgttgccaa taccctcat 950
 tgtgtgtaat agaaccttct tagcattaag accttgtaaa caaaaataat 1000
 tcttgggggtg ggtatgaaga tgcttcagag ctcatgcgcg ttaccacga 1050
 tggcatgact agcacagagc tgatctctgt ttctgttttg ctttattccc 1100
 tcttgggatg atatcatcca gtctttatat gttgccaata tacctcattg 1150
 tgtgtaatag aaccttctta gcattaagac cttgtaaaca aaaataattc 1200
 ttgtgttaag ttaaatacatt tttgtcctaa ttgtaatgtg taatcttaaa 1250
 gttaaataaa ctttgtgtat ttatataata ataaagctaa aactgatata 1300
 aaataaagaa agagtaaact g 1321

<210> 63
 <211> 134 .
 <212> PRT
 <213> Homo Sapien

 <400> 63

Met	Arg	Gly	Thr	Pro	Gly	Asp	Ala	Asp	Gly	Gly	Gly	Arg	Ala	Val	1	5	10	15
Tyr	Gln	Ser	Ile	Thr	Val	Ala	Val	Ile	Thr	Cys	Lys	Tyr	Pro	Glu	20	25	30	
Ala	Leu	Glu	Gln	Gly	Arg	Gly	Asp	Pro	Ile	Tyr	Leu	Gly	Ile	Gln	35	40	45	
Asn	Pro	Glu	Met	Cys	Leu	Tyr	Cys	Glu	Lys	Val	Gly	Glu	Gln	Pro	50	55	60	
Thr	Leu	Gln	Leu	Lys	Glu	Gln	Lys	Ile	Met	Asp	Leu	Tyr	Gly	Gln	65	70	75	
Pro	Glu	Pro	Val	Lys	Pro	Phe	Leu	Phe	Tyr	Arg	Ala	Lys	Thr	Gly	80	85	90	
Arg	Thr	Ser	Thr	Leu	Glu	Ser	Val	Ala	Phe	Pro	Asp	Trp	Phe	Ile	95	100	105	
Ala	Ser	Ser	Lys	Arg	Asp	Gln	Pro	Ile	Ile	Leu	Thr	Ser	Glu	Leu	110	115	120	
Gly	Lys	Ser	Tyr	Asn	Thr	Ala	Phe	Glu	Leu	Asn	Ile	Asn	Asp	125	130			

<210> 64
 <211> 999
 <212> DNA
 <213> Homo Sapien

<400> 64
 gcgaggctgc accagcgcct ggcacccatga ggacgcctgg gcctctgccc 50
 gtgctgctgc tgctcctggc gggagccccc gccgcgcggc ccaactcccc 100
 gacctgctac tcccgcacgc gggccctgag ccaggagatc acccgcgact 150
 tcaacctcct gcaggtctcg gagccctcgg agccatgtgt gagatacctg 200
 cccaggctgt acctggacat acacaattac tgtgtgctgg acaagctgcg 250
 ggactttgtg gcctcgcccc cgtgttggaa agtggcccag gtagattcct 300
 tgaaggacaa agcacggaag ctgtacacca tcatgaactc gttctgcagg 350
 agagatttgg tattcctggt ggatgactgc aatgccttgg aatacccaat 400
 cccagtgact acggtcctgc cagatcgtca gcgctaaggg aactgagacc 450
 agagaaagaa cccaagagaa ctaaagttat gtcagctacc cagacttaat 500
 gggccagagc catgaccctc acaggtcttg tgtagttgt atctgaaact 550
 gttatgtatc tctctacctt ctggaaaaca gggctgggtat tcctaccag 600
 gaacctcctt tgagcataga gttagcaacc atgcttctca ttcccttgac 650

tcattgtcttg ccaggatggt tagatacaca gcatgttgat ttggtcacta 700
 aaaagaagaa aaggactaac aagcttcact tttatgaaca actattttga 750
 gaacatgcac aatagtatgt ttttattact gggttaatgg agtaatggta 800
 cttttattct ttcttgatag aaacctgctt acatttaacc aagcttctat 850
 tatgcctttt tctaacacag actttcttca ctgtctttca tttaaaaaga 900
 aattaatgct cttaagatat atattttacg tagtgctgac aggaccact 950
 ctttcattga aaggtgatga aaatcaaata aagaatctct tcacatgga 999

<210> 65
 <211> 136
 <212> PRT
 <213> Homo Sapien

<400> 65
 Met Arg Thr Pro Gly Pro Leu Pro Val Leu Leu Leu Leu Leu Ala
 1 5 10 15
 Gly Ala Pro Ala Ala Arg Pro Thr Pro Pro Thr Cys Tyr Ser Arg
 20 25 30
 Met Arg Ala Leu Ser Gln Glu Ile Thr Arg Asp Phe Asn Leu Leu
 35 40 45
 Gln Val Ser Glu Pro Ser Glu Pro Cys Val Arg Tyr Leu Pro Arg
 50 55 60
 Leu Tyr Leu Asp Ile His Asn Tyr Cys Val Leu Asp Lys Leu Arg
 65 70 75
 Asp Phe Val Ala Ser Pro Pro Cys Trp Lys Val Ala Gln Val Asp
 80 85 90
 Ser Leu Lys Asp Lys Ala Arg Lys Leu Tyr Thr Ile Met Asn Ser
 95 100 105
 Phe Cys Arg Arg Asp Leu Val Phe Leu Leu Asp Asp Cys Asn Ala
 110 115 120
 Leu Glu Tyr Pro Ile Pro Val Thr Thr Val Leu Pro Asp Arg Gln
 125 130 135
 Arg

<210> 66
 <211> 1893
 <212> DNA
 <213> Homo Sapien

<400> 66
 gtctccgcgt cacaggaact tcagcaccca cagggcggac agcgctcccc 50

tctacctgga gacttgactc ccgcgcgccc caaccctgct tatcccttga 100
 ccgtcgagtg tcagagatcc tgcagccgcc cagtcgccgc ccctctcccg 150
 cccacacccc accctcctgg ctcttctgt ttttactcct ccttttcatt 200
 cataacaaaa gctacagctc caggagccca gcgcggggct gtgacccaag 250
 ccgagcgtgg aagaatgggg ttccctcgga ccggcacttg gattctggtg 300
 ttagtgctcc cgattcaagc tttcccaaaa cctggaggaa gccaaagaca 350
 atctctacat aatagagaat taagtgcaga aagaccttg aatgaacaga 400
 ttgctgaagc agaagaagac aagattaaaa aaacatatcc tccagaaaac 450
 aagccaggtc agagcaacta ttcttttgtt gataacttga acctgctaaa 500
 ggcaataaca gaaaaggaaa aaattgagaa agaaagacaa tctataagaa 550
 gctccccact tgataataag ttgaatgtgg aagatgttga ttcaaccaag 600
 aatcgaaaac tgatcgatga ttatgactct actaagagtg gattggatca 650
 taaatttcaa gatgatccag atgggtcttca tcaactagac gggactcctt 700
 taaccgctga agacattgtc cataaaatcg ctgccaggat ttatgaagaa 750
 aatgacagag ccgtgtttga caagattgtt tctaaactac ttaatctcgg 800
 ccttatcaca gaaagccaag cacatacact ggaagatgaa gtagcagagg 850
 ttttacaaaa attaattctc aaggaagcca acaattatga ggaggatccc 900
 aataagccca caagctggac tgagaatcag gctggaaaaa taccagagaa 950
 agtgactcca atggcagcaa ttcaagatgg tcttgctaag ggagaaaacg 1000
 atgaaacagt atctaacaca ttaaccttga caaatggctt ggaaaggaga 1050
 actaaaacct acagtgaaga caactttgag gaactccaat atttcccaaa 1100
 tttctatgcg ctactgaaaa gtattgattc agaaaaagaa gcaaaagaga 1150
 aagaaacact gattactatc atgaaaacac tgattgactt tgtgaagatg 1200
 atggtgaaat atggaacaat atctccagaa gaaggtgttt cctaccttga 1250
 aaacttggat gaaatgattg ctcttcagac caaaaacaag ctagaaaaaa 1300
 atgctactga caatataagc aagcttttcc cagcaccatc agagaagagt 1350
 catgaagaaa cagacagtac caaggaagaa gcagctaaga tggaaaagga 1400
 atatggaagc ttgaaggatt ccacaaaaga tgataactcc aaccaggag 1450
 gaaagacaga tgaacccaaa ggaaaaacag aagcctattt ggaagccatc 1500

agaaaaaata ttgaatgggt gaagaaacat gacaaaaagg gaaataaaga 1550
 agattatgac ctttcaaaga tgagagactt catcaataaa caagctgatg 1600
 cttatgtgga gaaaggcatc cttgacaagg aagaagccga ggccatcaag 1650
 cgcatttata gcagcctgta aaaatggcaa aagatccagg agtctttcaa 1700
 ctgtttcaga aaacataata tagcttaaaa cacttctaata tctgtgatta 1750
 aaattttttg acccaagggt tattagaaag tgctgaattt acagtagtta 1800
 accttttaca agtgggttaaa acatagcttt cttcccgtaa aaactatctg 1850
 aaagtaaagt tgtatgtaag ctgaaaaaaaa aaaaaaaaaa aaa 1893

<210> 67

<211> 468

<212> PRT

<213> Homo Sapien

<400> 67

Met	Gly	Phe	Leu	Gly	Thr	Gly	Thr	Trp	Ile	Leu	Val	Leu	Val	Leu	1	5	10	15
Pro	Ile	Gln	Ala	Phe	Pro	Lys	Pro	Gly	Gly	Ser	Gln	Asp	Lys	Ser	20	25	30	
Leu	His	Asn	Arg	Glu	Leu	Ser	Ala	Glu	Arg	Pro	Leu	Asn	Glu	Gln	35	40	45	
Ile	Ala	Glu	Ala	Glu	Glu	Asp	Lys	Ile	Lys	Lys	Thr	Tyr	Pro	Pro	50	55	60	
Glu	Asn	Lys	Pro	Gly	Gln	Ser	Asn	Tyr	Ser	Phe	Val	Asp	Asn	Leu	65	70	75	
Asn	Leu	Leu	Lys	Ala	Ile	Thr	Glu	Lys	Glu	Lys	Ile	Glu	Lys	Glu	80	85	90	
Arg	Gln	Ser	Ile	Arg	Ser	Ser	Pro	Leu	Asp	Asn	Lys	Leu	Asn	Val	95	100	105	
Glu	Asp	Val	Asp	Ser	Thr	Lys	Asn	Arg	Lys	Leu	Ile	Asp	Asp	Tyr	110	115	120	
Asp	Ser	Thr	Lys	Ser	Gly	Leu	Asp	His	Lys	Phe	Gln	Asp	Asp	Pro	125	130	135	
Asp	Gly	Leu	His	Gln	Leu	Asp	Gly	Thr	Pro	Leu	Thr	Ala	Glu	Asp	140	145	150	
Ile	Val	His	Lys	Ile	Ala	Ala	Arg	Ile	Tyr	Glu	Glu	Asn	Asp	Arg	155	160	165	
Ala	Val	Phe	Asp	Lys	Ile	Val	Ser	Lys	Leu	Leu	Asn	Leu	Gly	Leu	170	175	180	

Ile Thr Glu Ser	Gln Ala His Thr Leu	Glu Asp Glu Val Ala	Glu
	185	190	195
Val Leu Gln Lys	Leu Ile Ser Lys Glu	Ala Asn Asn Tyr Glu	Glu
	200	205	210
Asp Pro Asn Lys	Pro Thr Ser Trp Thr	Glu Asn Gln Ala Gly	Lys
	215	220	225
Ile Pro Glu Lys	Val Thr Pro Met Ala	Ala Ile Gln Asp Gly	Leu
	230	235	240
Ala Lys Gly Glu	Asn Asp Glu Thr Val	Ser Asn Thr Leu Thr	Leu
	245	250	255
Thr Asn Gly Leu	Glu Arg Arg Thr Lys	Thr Tyr Ser Glu Asp	Asn
	260	265	270
Phe Glu Glu Leu	Gln Tyr Phe Pro Asn	Phe Tyr Ala Leu Leu	Lys
	275	280	285
Ser Ile Asp Ser	Glu Lys Glu Ala Lys	Glu Lys Glu Thr Leu	Ile
	290	295	300
Thr Ile Met Lys	Thr Leu Ile Asp Phe	Val Lys Met Met Val	Lys
	305	310	315
Tyr Gly Thr Ile	Ser Pro Glu Glu Gly	Val Ser Tyr Leu Glu	Asn
	320	325	330
Leu Asp Glu Met	Ile Ala Leu Gln Thr	Lys Asn Lys Leu Glu	Lys
	335	340	345
Asn Ala Thr Asp	Asn Ile Ser Lys Leu	Phe Pro Ala Pro Ser	Glu
	350	355	360
Lys Ser His Glu	Glu Thr Asp Ser Thr	Lys Glu Glu Ala Ala	Lys
	365	370	375
Met Glu Lys Glu	Tyr Gly Ser Leu Lys	Asp Ser Thr Lys Asp	Asp
	380	385	390
Asn Ser Asn Pro	Gly Gly Lys Thr Asp	Glu Pro Lys Gly Lys	Thr
	395	400	405
Glu Ala Tyr Leu	Glu Ala Ile Arg Lys	Asn Ile Glu Trp Leu	Lys
	410	415	420
Lys His Asp Lys	Lys Gly Asn Lys Glu	Asp Tyr Asp Leu Ser	Lys
	425	430	435
Met Arg Asp Phe	Ile Asn Lys Gln Ala	Asp Ala Tyr Val Glu	Lys
	440	445	450
Gly Ile Leu Asp	Lys Glu Glu Ala Glu	Ala Ile Lys Arg Ile	Tyr
	455	460	465
Ser Ser Leu			

<210> 68
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 68
cgtcacagga acttcagcac cc 22

<210> 69
<211> 23
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 69
gtcttggctt cctccaggtt tgg 23

<210> 70
<211> 38
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 70
ggacagcgt cccctctacc tggagacttg actccgc 38

<210> 71
<211> 2379
<212> DNA
<213> Homo Sapien

<400> 71
gttgctccgg cggcgctcgg ggagggagcc agcagcctag ggcctaggcc 50
cgggccacca tggcgtgcc tccaggccca gccgccctcc ggcacacact 100
gctgctcctg ccagcccttc tgagctcagg ttggggggag ttggagccac 150
aaatagatgg tcagacctgg gctgagcggg cacttcggga gaatgaacgc 200
cacgcottca cctgccgggt ggcagggggg cctggcaccc ccagattggc 250
ctggtatctg gatggacagc tgcaggaggc cagcacctca agactgctga 300
gcgtgggagg ggaggccttc tctggaggca ccagcacctt cactgtcact 350
gcccatcggg cccagcatga gctcaactgc tctctgcagg accccagaag 400
tggccgatca gccaacgcct ctgtcatcct taatgtgcaa ttcaagccag 450

agattgcccc agtcggcgcc aagtaccagg aagctcaggg cccaggcctc 500
 ctggttggtcc tgtttgccct ggtgctgcc aaccgcggg ccaatgtcac 550
 ctggatcgac caggatggg cagtgactgt caacacctct gacttcctgg 600
 tgctggatgc gcagaactac ccctggctca ccaaccacac ggtgcagctg 650
 cagctccgca gcctggcaca caacctctcg gtggtggcca ccaatgacgt 700
 ggggtgcacc agtgcgtcgc ttccagcccc agggccctcc cggcaccat 750
 ctctgatatc aagtgactcc aacaacctaa aactcaaca cgtgcgcctg 800
 ccacgggaga acatgtccct ccggtccaac cttcagctca atgacctcac 850
 tccagattcc agagcagtga aaccagcaga ccggcagatg gtcagaaca 900
 acagccggcc agagcttctg gacccggagc ccggcggcct cctcaccagc 950
 caaggtttca tccgcctccc agtgctgggc tatatctatc gagtgtccag 1000
 cgtgagcagt gatgagatct ggctctgagc cgagggcgag acaggagtat 1050
 tctcttggtc totggacacc ctcccattcc tccaaggcat cctctaccta 1100
 gctaggtcac caacgtgaag aagttatgcc actgccactt ttgcttgccc 1150
 tcctggctgg ggtgccctcc atgtcatgca cgtgatgcat ttcactgggc 1200
 tgtaaccgc aggggcacag gtatctttgg caaggctacc agttggacgt 1250
 aagcccctca tgctgactca ggggtgggcc tgcattgat gactgggccc 1300
 ttccagaggg agctctttgg ccaggggtgt tcagatgtca tccagcatcc 1350
 aagtgtggca tggcctgtg tataccccac ccagtactc cacagcacct 1400
 tgtacagtag gcatgggggc gtgccttgtt gggggacagg gagggccctg 1450
 catggatttt cctccttct atgctatgta gccttggtcc ctcaggtaaa 1500
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 ccaacccctg acccagcgg accggccaag cacaaacgtc ctttttgctg 1600
 cacacgtctc tgccttcac ttcttctct ctgtccccac ctctcttg 1650
 gaattctagg ttacacgttg gaccttctct actacttcac tgggcactag 1700
 acttttctat tggcctgtgc catgcccag tattagcaca agttaggagg 1750
 gaagaggcag gcgatgagtc tagtagcacc caggacggct tntagctatg 1800
 catcattttc ctacggcgtt agcactttaa gcacatcccc taggggaggg 1850
 ggtgagtgag gggcccagag ccctctttgt ggcttcccca cgtttggcct 1900

tctgggattc actgtgagtg tcctgagctc tcgggggttga tggtttttct 1950
ctcagcatgt ctctccacc acgggacccc agccctgacc aacccatggt 2000
tgcctcatca gcaggaaggt gcccttcctg gaggatggtc gccacaggca 2050
cataattcaa cagtgtggaa gctttagggg aacatggaga aagaaggaga 2100
ccacataccc caaagtgacc taagaacact ttaaaaagca acatgtaaat 2150
gattggaaat taatatagta cagaatatat ttttcccttg ttgagatctt 2200
cttttgtaat gtttttcatg ttactgccta gggcggtgct gagcacacag 2250
caagtttaat aaacttgact gaattcattt aaaaaaaaaa aaaaaaaaaa 2300
aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 2350
aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 2379

<210> 72
<211> 322
<212> PRT
<213> Homo Sapien

<400> 72
Met Ala Leu Pro Pro Gly Pro Ala Ala Leu Arg His Thr Leu Leu
1 5 10 15
Leu Leu Pro Ala Leu Leu Ser Ser Gly Trp Gly Glu Leu Glu Pro
20 25 30
Gln Ile Asp Gly Gln Thr Trp Ala Glu Arg Ala Leu Arg Glu Asn
35 40 45
Glu Arg His Ala Phe Thr Cys Arg Val Ala Gly Gly Pro Gly Thr
50 55 60
Pro Arg Leu Ala Trp Tyr Leu Asp Gly Gln Leu Gln Glu Ala Ser
65 70 75
Thr Ser Arg Leu Leu Ser Val Gly Gly Glu Ala Phe Ser Gly Gly
80 85 90
Thr Ser Thr Phe Thr Val Thr Ala His Arg Ala Gln His Glu Leu
95 100 105
Asn Cys Ser Leu Gln Asp Pro Arg Ser Gly Arg Ser Ala Asn Ala
110 115 120
Ser Val Ile Leu Asn Val Gln Phe Lys Pro Glu Ile Ala Gln Val
125 130 135
Gly Ala Lys Tyr Gln Glu Ala Gln Gly Pro Gly Leu Leu Val Val
140 145 150
Leu Phe Ala Leu Val Arg Ala Asn Pro Pro Ala Asn Val Thr Trp
155 160 165

Ile	Asp	Gln	Asp	Gly	Pro	Val	Thr	Val	Asn	Thr	Ser	Asp	Phe	Leu
				170					175					180
Val	Leu	Asp	Ala	Gln	Asn	Tyr	Pro	Trp	Leu	Thr	Asn	His	Thr	Val
				185					190					195
Gln	Leu	Gln	Leu	Arg	Ser	Leu	Ala	His	Asn	Leu	Ser	Val	Val	Ala
				200					205					210
Thr	Asn	Asp	Val	Gly	Val	Thr	Ser	Ala	Ser	Leu	Pro	Ala	Pro	Gly
				215					220					225
Pro	Ser	Arg	His	Pro	Ser	Leu	Ile	Ser	Ser	Asp	Ser	Asn	Asn	Leu
				230					235					240
Lys	Leu	Asn	Asn	Val	Arg	Leu	Pro	Arg	Glu	Asn	Met	Ser	Leu	Pro
				245					250					255
Ser	Asn	Leu	Gln	Leu	Asn	Asp	Leu	Thr	Pro	Asp	Ser	Arg	Ala	Val
				260					265					270
Lys	Pro	Ala	Asp	Arg	Gln	Met	Ala	Gln	Asn	Asn	Ser	Arg	Pro	Glu
				275					280					285
Leu	Leu	Asp	Pro	Glu	Pro	Gly	Gly	Leu	Leu	Thr	Ser	Gln	Gly	Phe
				290					295					300
Ile	Arg	Leu	Pro	Val	Leu	Gly	Tyr	Ile	Tyr	Arg	Val	Ser	Ser	Val
				305					310					315
Ser	Ser	Asp	Glu	Ile	Trp	Leu								
				320										

<210> 73
 <211> 843
 <212> DNA
 <213> Homo Sapien

<400> 73
 cggggacgga agcggcccct gggcccgagg ggctggagcc gggccggggc 50
 gatgtggagc gcgggcccgc gcggggctgc ctggccggtg ctgttggggc 100
 tgctgctggc gctgttagtg ccgggcggtg gtgccgcaa gaccggtgcg 150
 gagctcgtga cctgcgggtc ggtgctgaag ctgctcaata cgcaccaccg 200
 cgtgcggctg cactgcacg acatcaaata cggatccggc agcggccagc 250
 aatcggtgac cggcgtagag gcgtcggacg acgccaatag ctactggcgg 300
 atccgcggcg gctcggaggg cgggtgcccg cgcgggtccc cggcgcgctg 350
 cgggcaggcg gtgaggctca cgcattgtgt tacgggcaag aacctgcaca 400
 cgcaccactt cccgtcgccg ctgtccaaca accaggaggt gactgccttt 450
 ggggaagacg gcgagggcga cgacctggac ctatggacag tgcgctgctc 500

tggacagcac tgggagcgtg aggctgctgt gcgcttccag catgtgggca 550
 cctctgtgtt cctgtcagtc acgggtgagc agtatggaag ccccatccgt 600
 gggcagcatg aggtccacgg catgcccagt gccaacacgc acaatacgtg 650
 gaaggccatg gaaggcatct tcatcaagcc tagtgtggag ccctctgcag 700
 gtcacgatga actctgagtg tgtggatgga tgggtggatg gaggggtggca 750
 ggtggggcgt ctgcagggcc actcttggca gagactttgg gtttgtaggg 800
 gtccctcaagt gcctttgtga ttaaagaatg ttggtctatg aaa 843

<210> 74
 <211> 221
 <212> PRT
 <213> Homo Sapien

<400> 74
 Met Trp Ser Ala Gly Arg Gly Gly Ala Ala Trp Pro Val Leu Leu
 1 5 10 15
 Gly Leu Leu Leu Ala Leu Leu Val Pro Gly Gly Gly Ala Ala Lys
 20 25 30
 Thr Gly Ala Glu Leu Val Thr Cys Gly Ser Val Leu Lys Leu Leu
 35 40 45
 Asn Thr His His Arg Val Arg Leu His Ser His Asp Ile Lys Tyr
 50 55 60
 Gly Ser Gly Ser Gly Gln Gln Ser Val Thr Gly Val Glu Ala Ser
 65 70 75
 Asp Asp Ala Asn Ser Tyr Trp Arg Ile Arg Gly Gly Ser Glu Gly
 80 85 90
 Gly Cys Pro Arg Gly Ser Pro Val Arg Cys Gly Gln Ala Val Arg
 95 100 105
 Leu Thr His Val Leu Thr Gly Lys Asn Leu His Thr His His Phe
 110 115 120
 Pro Ser Pro Leu Ser Asn Asn Gln Glu Val Ser Ala Phe Gly Glu
 125 130 135
 Asp Gly Glu Gly Asp Asp Leu Asp Leu Trp Thr Val Arg Cys Ser
 140 145 150
 Gly Gln His Trp Glu Arg Glu Ala Ala Val Arg Phe Gln His Val
 155 160 165
 Gly Thr Ser Val Phe Leu Ser Val Thr Gly Glu Gln Tyr Gly Ser
 170 175 180
 Pro Ile Arg Gly Gln His Glu Val His Gly Met Pro Ser Ala Asn
 185 190 195

Thr His Asn Thr Trp Lys Ala Met Glu Gly Ile Phe Ile Lys Pro
 200 205 210

Ser Val Glu Pro Ser Ala Gly His Asp Glu Leu
 215 220

<210> 75
 <211> 1049
 <212> DNA
 <213> Homo Sapien

<400> 75
 gttgctatgt tgcccaggct ggtcttgaag tgccttgacc tcctaaagtg 50
 ttggaaccac agacgtgagc cactccaccc agcctaaaac ttcattcttct 100
 ttggatgaga tgaacacttt taacaagaga acaggactct atataaatcg 150
 ctgtgggctc accacctcta aggaggagca ctgactgaag acagaaaaat 200
 tgatgaactg aagaagacat ggtccattat gccttacaaa cttacacagt 250
 gctttgggaa ttccaaagta ctgagtggag agaggtgttt caggagccgt 300
 agagccagat cgtcatcatg tctgcattgt ggctgctgct gggcctcctt 350
 gccctgatgg acttgctctga aagcagcaac tggggatgct atggaaacat 400
 ccaaagcctg gacaccctg gagcatcttg tgggattgga agacgtcacg 450
 gcctgaacta ctgtggagtt cgtgcttctg aaaggctggc tgaaatagac 500
 atgccatacc tcctgaaata tcaacccatg atgcaaacca ttggccaaaa 550
 gtactgcatg gatcctgccg tgatcgtgg tgtcttgtcc aggaagtctc 600
 ccggtgacaa aattctggtc aacatgggag ataggactag catggtgcag 650
 gaccctggct ctcaagctcc cacatcctgg attagtgagt ctgaggtttc 700
 ccagacaact gaagttctga ctactagaat caaagaaatc cagaggaggt 750
 ttccaacctg gaccctgac cagtacctga gaggtggact ctgtgcctac 800
 agtgggggtg ctggctatgt ccgaagcagc caggacctga gctgtgactt 850
 ctgcaatgat gtccttgac gagccaagta cctcaagaga catggcttct 900
 aacatctcag atgaaacca agaccatgat cacatatgca gcctcaaag 950
 ttacacagat aaaactagcc aagggcacct gtaactggga atctgagttt 1000
 gacctaaaag tcattaaaat aacatgaatc ccattaaaaa aaaaaaaaaa 1049

<210> 76
 <211> 194
 <212> PRT
 <213> Homo Sapien

<400> 76

Met Ser Ala Leu Trp Leu Leu Leu Gly Leu Leu Ala Leu Met Asp
1 5 10 15
Leu Ser Glu Ser Ser Asn Trp Gly Cys Tyr Gly Asn Ile Gln Ser
20 25 30
Leu Asp Thr Pro Gly Ala Ser Cys Gly Ile Gly Arg Arg His Gly
35 40 45
Leu Asn Tyr Cys Gly Val Arg Ala Ser Glu Arg Leu Ala Glu Ile
50 55 60
Asp Met Pro Tyr Leu Leu Lys Tyr Gln Pro Met Met Gln Thr Ile
65 70 75
Gly Gln Lys Tyr Cys Met Asp Pro Ala Val Ile Ala Gly Val Leu
80 85 90
Ser Arg Lys Ser Pro Gly Asp Lys Ile Leu Val Asn Met Gly Asp
95 100 105
Arg Thr Ser Met Val Gln Asp Pro Gly Ser Gln Ala Pro Thr Ser
110 115 120
Trp Ile Ser Glu Ser Gln Val Ser Gln Thr Thr Glu Val Leu Thr
125 130 135
Thr Arg Ile Lys Glu Ile Gln Arg Arg Phe Pro Thr Trp Thr Pro
140 145 150
Asp Gln Tyr Leu Arg Gly Gly Leu Cys Ala Tyr Ser Gly Gly Ala
155 160 165
Gly Tyr Val Arg Ser Ser Gln Asp Leu Ser Cys Asp Phe Cys Asn
170 175 180
Asp Val Leu Ala Arg Ala Lys Tyr Leu Lys Arg His Gly Phe
185 190

<210> 77

<211> 899

<212> DNA

<213> Homo Sapien

<400> 77

ttgaaaatct actctatcag ctgctgtggt tgccaccatt ctcaggaccc 50
tcgccatgaa agcccttatg ctgctcacc tgtctgttct gctctgctgg 100
gtctcagctg acattcgctg tcaactcctgc tacaaggctc ctgtgctggg 150
ctgtgtggac cggcagtcct gccgcctgga gccaggacag caatgcctga 200
caacacatgc ataccttggt aagatgtggg ttttctccaa tctgcgctgt 250
ggcacaccag aagagccctg tcaggaggcc ttcaaccaa ccaaccgcaa 300

gctgggtctg acatataaca ccacctgctg caacaaggac aactgcaaca 350
 gcgcaggacc ccggcccact ccagccctgg gccttgtctt ccttacctcc 400
 ttggctggcc ttggcctctg gctgctgcac tgagactcat tccattggct 450
 gcccctcctc ccacctgcct tggcctgagc ctctctccct gtgtctctgt 500
 atccccctggc ttacagaat cgtctctccc tagctcccat ttctttaatt 550
 aaacactgtt ccgagtggtc tcctcatcca tccttcccac ctcacacct 600
 tcactctcct tttctgggt ccttcccac ttccttccag gacctccatt 650
 ggctcctaga agggctcccc actttgcttc ctatactctg ctgtccccta 700
 cttgaggagg gattgggatc tgggcctgaa atggggcttc tgtgttgtcc 750
 ccagtgaagg ctcccacaag gacctgatga cctcactgta cagagctgac 800
 tccccaaacc caggctcca tatgtacccc atcccccata ctcacctctt 850
 tccattttga gtaataaatg tctgagtctg gaaaaaaaaa aaaaaaaaaa 899

<210> 78
 <211> 125
 <212> PRT
 <213> Homo Sapien

<400> 78
 Met Lys Ala Leu Met Leu Leu Thr Leu Ser Val Leu Leu Cys Trp
 1 5 10 15
 Val Ser Ala Asp Ile Arg Cys His Ser Cys Tyr Lys Val Pro Val
 20 25 30
 Leu Gly Cys Val Asp Arg Gln Ser Cys Arg Leu Glu Pro Gly Gln
 35 40 45
 Gln Cys Leu Thr Thr His Ala Tyr Leu Gly Lys Met Trp Val Phe
 50 55 60
 Ser Asn Leu Arg Cys Gly Thr Pro Glu Glu Pro Cys Gln Glu Ala
 65 70 75
 Phe Asn Gln Thr Asn Arg Lys Leu Gly Leu Thr Tyr Asn Thr Thr
 80 85 90
 Cys Cys Asn Lys Asp Asn Cys Asn Ser Ala Gly Pro Arg Pro Thr
 95 100 105
 Pro Ala Leu Gly Leu Val Phe Leu Thr Ser Leu Ala Gly Leu Gly
 110 115 120
 Leu Trp Leu Leu His
 125

<210> 79

<211> 1977
<212> DNA
<213> Homo Sapien

<400> 79

acggggccgca gcggcagtg cgtagggttg gcgcacggat ccgttgcggc 50
tgcagctctg cagtcggggc gttccttcgc cgccgccagg ggtagcgggtg 100
tagctgcgca gcgtcgcgcg cgctaccgca cccaggttcg gcccgtaggc 150
gtctggcagc ccggcgccat cttcatcgag cgccatggcc gcagcctgcg 200
ggccgggagc ggccgggtac tgcttgctcc tcggcttgca tttgtttctg 250
ctgaccgcgg gccctgccct gggctggaac gaccctgaca gaatgttgct 300
gcgggatgta aaagctctta ccctccacta tgaccgctat accacctccc 350
gcaggctgga tcccatccca cagttgaaat gtgttgaggg cacagctggg 400
tgtgattctt ataccccaaa agtcatacag tgtcagaaca aaggctggga 450
tgggtatgat gtacagtggg aatgtaagac ggacttagat attgcataca 500
aatttgga aaactgtggtg agctgtgaag gctatgagtc ctctgaagac 550
cagtatgtac taagagggtc ttgtggcttg gagtataatt tagattatac 600
agaacttggc ctgcagaaac tgaaggagtc tggaagcag cacggctttg 650
cctctttctc tgattattat tataagtggc cctcggcgga ttcctgtaac 700
atgagtggat tgattaccat cgtgggtactc cttgggatcg cttttgtagt 750
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agtatcctcc attttcccac cgttaccaga gattcaccaa ctacagcagga 850
cctcctccc caggctttaa gtctgagttc acaggaccac agaatactgg 900
ccatggtgca acttctgggt ttggcagtg ttttacagga caacaaggat 950
atgaaaattc aggaccaggg ttctggacag gcttgggaac tgggtggaata 1000
ctaggatatt tgtttggcag caatagagcg gcaacaccct tctcagactc 1050
gtggtactac ccgtcctatc ctccctccta ccctggcacg tggaataggg 1100
cttactcacc ccttcatgga ggctcgggca gctattcggg atgttcaaac 1150
tcagacacga aaaccagaac tgcacagga tatggtggta ccaggagacg 1200
ataaagtaga aagttggagt caaacactgg atgcagaaat tttggatttt 1250
tcatcacttt ctcttttagaa aaaaagtact acctgttaac aattgggaaa 1300
aggggatatt caaaagttct gtggtgttat gtccagtga gctttttgta 1350

ttctattatt tgaggctaaa agttgatgtg tgacaaaata cttatgtgtt 1400
 gtatgtcagt gtaacatgca gatgtatatt gcagtttttg aaagtgatca 1450
 ttactgtgga atgctaaaaa tacattaatt tctaaaacct gtgatgccct 1500
 aagaagcatt aagaatgaag gtgttggtact aatagaaact aagtacagaa 1550
 aatttcagtt ttaggtgggt gtagctgatg agttattacc tcatagagac 1600
 tataatattc tatttgggtat tatattatatt gatgtttgct gttcttcaaa 1650
 catttaaatc aagcttttga ctaattatgc taatttgtga gttctgatca 1700
 cttttgagct ctgaagcttt gaatcattca gtggtggaga tggccttctg 1750
 gtaactgaat attaccttct gtaggaaaag gtggaaaata agcatctaga 1800
 aggttggtgt gaatgactct gtgctggcaa aaatgcttga aacctctata 1850
 tttctttcgt tcataagagg taaagggtcaa atttttcaac aaaagtcttt 1900
 taataacaaa agcatgcagt tctctgtgaa atctcaaata ttgttgtaat 1950
 agtctgtttc aatcttaaaa agaata 1977

<210> 80

<211> 339

<212> PRT

<213> Homo Sapien

<400> 80

Met	Ala	Ala	Ala	Cys	Gly	Pro	Gly	Ala	Ala	Gly	Tyr	Cys	Leu	Leu
1				5					10					15
Leu	Gly	Leu	His	Leu	Phe	Leu	Leu	Thr	Ala	Gly	Pro	Ala	Leu	Gly
				20					25					30
Trp	Asn	Asp	Pro	Asp	Arg	Met	Leu	Leu	Arg	Asp	Val	Lys	Ala	Leu
				35					40					45
Thr	Leu	His	Tyr	Asp	Arg	Tyr	Thr	Thr	Ser	Arg	Arg	Leu	Asp	Pro
				50					55					60
Ile	Pro	Gln	Leu	Lys	Cys	Val	Gly	Gly	Thr	Ala	Gly	Cys	Asp	Ser
				65					70					75
Tyr	Thr	Pro	Lys	Val	Ile	Gln	Cys	Gln	Asn	Lys	Gly	Trp	Asp	Gly
				80					85					90
Tyr	Asp	Val	Gln	Trp	Glu	Cys	Lys	Thr	Asp	Leu	Asp	Ile	Ala	Tyr
				95					100					105
Lys	Phe	Gly	Lys	Thr	Val	Val	Ser	Cys	Glu	Gly	Tyr	Glu	Ser	Ser
				110					115					120
Glu	Asp	Gln	Tyr	Val	Leu	Arg	Gly	Ser	Cys	Gly	Leu	Glu	Tyr	Asn
				125					130					135

Leu	Asp	Tyr	Thr	Glu	Leu	Gly	Leu	Gln	Lys	Leu	Lys	Glu	Ser	Gly	140	145	150
Lys	Gln	His	Gly	Phe	Ala	Ser	Phe	Ser	Asp	Tyr	Tyr	Tyr	Lys	Trp	155	160	165
Ser	Ser	Ala	Asp	Ser	Cys	Asn	Met	Ser	Gly	Leu	Ile	Thr	Ile	Val	170	175	180
Val	Leu	Leu	Gly	Ile	Ala	Phe	Val	Val	Tyr	Lys	Leu	Phe	Leu	Ser	185	190	195
Asp	Gly	Gln	Tyr	Ser	Pro	Pro	Pro	Tyr	Ser	Glu	Tyr	Pro	Pro	Phe	200	205	210
Ser	His	Arg	Tyr	Gln	Arg	Phe	Thr	Asn	Ser	Ala	Gly	Pro	Pro	Pro	215	220	225
Pro	Gly	Phe	Lys	Ser	Glu	Phe	Thr	Gly	Pro	Gln	Asn	Thr	Gly	His	230	235	240
Gly	Ala	Thr	Ser	Gly	Phe	Gly	Ser	Ala	Phe	Thr	Gly	Gln	Gln	Gly	245	250	255
Tyr	Glu	Asn	Ser	Gly	Pro	Gly	Phe	Trp	Thr	Gly	Leu	Gly	Thr	Gly	260	265	270
Gly	Ile	Leu	Gly	Tyr	Leu	Phe	Gly	Ser	Asn	Arg	Ala	Ala	Thr	Pro	275	280	285
Phe	Ser	Asp	Ser	Trp	Tyr	Tyr	Pro	Ser	Tyr	Pro	Pro	Ser	Tyr	Pro	290	295	300
Gly	Thr	Trp	Asn	Arg	Ala	Tyr	Ser	Pro	Leu	His	Gly	Gly	Ser	Gly	305	310	315
Ser	Tyr	Ser	Val	Cys	Ser	Asn	Ser	Asp	Thr	Lys	Thr	Arg	Thr	Ala	320	325	330
Ser	Gly	Tyr	Gly	Gly	Thr	Arg	Arg	Arg							335		